

WHAT IS CLAIMED IS:

1. A linearity measuring apparatus for a wafer orientation flat, comprising:

a base in which one, two, or more straight tracks are formed in a first direction;

a platform which is configured so as to be movable in said first direction by being engaged with said straight track via engagement means, and is further provided with a top surface formed so as to be flat to mount a wafer having an orientation flat;

a block which is installed on said base with a predetermined first clearance L being provided with the straight track in a second direction perpendicular to said first direction, and has a flat face against which the orientation flat of said wafer mounted on said platform abuts and which is parallel with said first direction;

wafer fixing means provided in said platform to fix said wafer in a state in which said wafer is mounted on said platform; and

a measurement device which is installed on said base with a predetermined second clearance M being provided with said block in said first direction, and has a probe opposed to said straight track and capable of being displaced in said second direction, wherein

when a clearance between the tip end of said probe and said straight track is taken as N, the following equation (1) is satisfied

$0 \mu\text{m} < L-N \leq 100 \mu\text{m} \dots\dots\dots (1)$

2. The linearity measuring apparatus according to claim 1, wherein said wafer fixing means has a suction port formed in said platform to attract and fix said wafer, a suction passage communicating with said suction port, and a switching valve provided in said suction passage to switch said suction port to a negative pressure or the atmospheric pressure.

3. The linearity measuring apparatus according to claim 1, wherein release means for moving said block in said second direction in which said block goes apart from said straight track is installed on said base.

4. The linearity measuring apparatus according to claim 1, wherein deflection data displayed on said measurement device can be outputted as an electronic signal.

5. The linearity measuring apparatus according to claim 1, wherein said apparatus can be applied to a wafer having a diameter in the range of 50 to 300 mm.